REMARKS

I. Introduction

Applicants note with appreciation the Examiner's indication that claims 13 and 14 would be allowable if rewritten in independent. Applicants submit that claims 13 and 14 are allowable as presently submitted due to their dependence upon claim 1, which is patentable over the cited reference.

Upon entry of the present amendment, claims 1-12 and 36-48 will remain pending in this application. Without acquiescing to the Examiner's rejections and even in light of the arguments presented below, claims 1, 36 and 45 have been amended to clarify that the attachment structures or points are multi-functional, as opposed to the apertures shown by the cited '095 patent. Support for this amendment appears at column 2.

Based on the following remarks, Applicants respectfully request entry of the above amendments and prompt allowance of a patent containing the pending claims.

II. 35 U.S.C. § 102

The Examiner has maintained the rejection of claims 1-12 and 36-48 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,728,095 to Taylor. Applicants believe that the rejection is unfounded for the reasons explained below.

1. The claimed equation *does* impose structural limitations

The primary flaw in the Examiner's reasoning is the position that Applicants' equation is "deemed not to impose any structural limitations on the claims distinguishable over the Taylor et al.'s device." That is incorrect. The claimed equation defines an attachment structure placement that allows the structures to be equidistant from one

another in a pattern that is in multiple of three. The equation generates an even placement with an equivalent distance between each attachment structure, even if rings of different diameters are used. As stated in Applicants' specification and as shown in the chart at column 6, the claimed equation provides a system of rings that has a variety of ring diameters but where each ring has triple symmetry and the hole spacing for each ring is the same. *See* col. 6, lines 14-20. As described below, that is not the case with the structure shown and described by the Taylor '095 patent.

2. The '095 patent plate does not meet the claimed equation: The spacing between the cavities and apertures is not consistent

The claimed equation defines a particular attachment structure placement. As shown in the Figure reproduced from the Taylor '095 patent below, the cavities 79 and apertures 75 are not equidistant from one another.

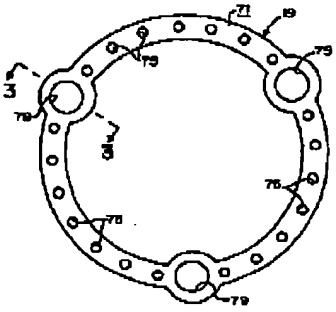


FIG. 2

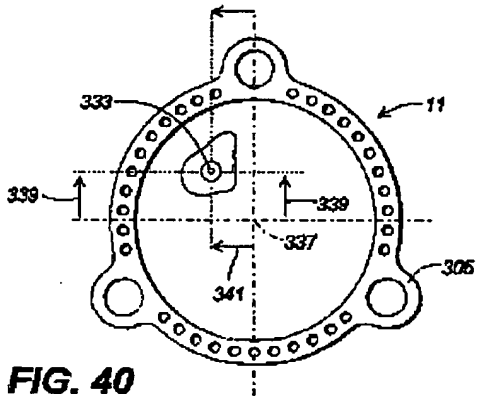


FIG. 40

In Figure 2, each spherical cavity 79 is closer to the spaced apertures 75 on either side of it than the spaced apertures 75 are to one another. In Figure 40, just the opposite is true. There is no continuity to the spacing of the Taylor '095 patent because spacing is not of importance -- the three spherical cavities 79 are intended to receive spherical

members 105, 107 of the connector means 59, 61, 63, 65, 67, 69. (It is worth mentioning that the design of the Taylor '095 patent may limit the surgeon's ability to rotate one of the rings and still use it as intended, although that is not a concern with the Taylor '095 patent because the connector means are not assembled to the plate intra-operatively.)

A useful analogy may be a set of Lego blocks. If the holes and pegs of the Legos are considered attachment structures, the symmetry of the pegs and holes within the block provides a way for them to be connected together in several configurations, not just one. Applying this analogy to the '095 patent, there is only a limited number of ways to assemble the two rings together to make a frame for the intended use. This is particularly so because the surgeon needs to determine *what type* of connector s/he will use and *in which holes* prior to the surgery when using a device of the '095 patent.

For example, if the surgeon chooses to use the Y-shaped connectors (of Figure 16) in the smaller apertures, the larger cavities will not be useful for attaching any other elements to the frame. Referring back to the Lego analogy, the universal and symmetrical attachment concept is lost. If, on the other hand, the surgeon chooses to use the round ball connectors (of Figure 5), which is the preferred embodiment, there are only a few possible ways to assemble the frame. If the surgeon wishes to move one strut over one hole, s/he will have to completely change the type of connection member used and the plate on which the change is made will no longer be symmetrical with the other plate in the system.

By contrast, the number of possible configurations provided by the claimed plate is much greater, limited only by the number of holes on the ring. In short, there is not a

systematic attachment structure placement described by the Taylor '095 patent, whereas the claimed invention provides a systematic equation that defines attachment structures that are spaced in a particular way and are equidistant from one another (or at least have attachment points that are equidistant from one another) such that multiple arrangements (e.g., Legos stacked differently) can be provided.

3. The '095 patent plate does not meet the claimed equation: It does not provide 2 x 3 symmetry

As described by Applicants' specification, the claimed equation also provides a plate that can be rotated in increments of 180° about a first axis (e.g., flipped over from top to bottom) and rotated in increments of 120° about a second axis (e.g., rotated 1/3 of the way about a circle), and each time, identical attachment structure positions are maintained. *See* col. 4, lines 5-29. By contrast, the device shown in Figure 2 of the Taylor '095 patent does not have a hole spacing that meets the equation. As shown below, if Figure 2 of the Taylor '095 patent is flipped 180° and rotated 120°, it does not maintain identical hole spacing.

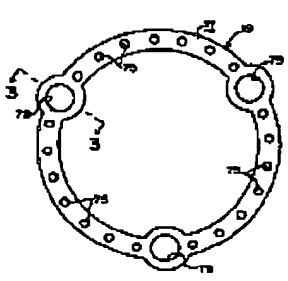
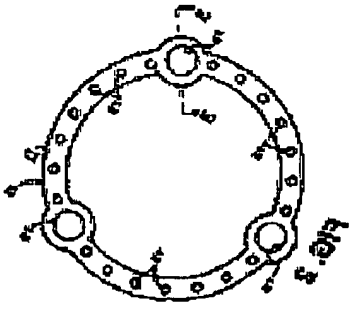


FIG. 2



On the other hand, the below figures from Applicants' patent are flipped and rotated the same way, and they show that a plate made according to the claimed equation *does* maintain its hole spacing and symmetry, as shown below:

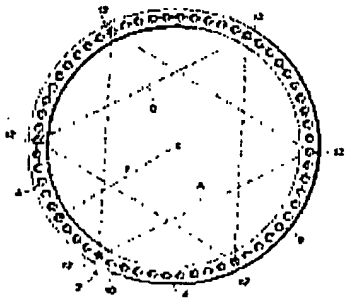


FIG. 1

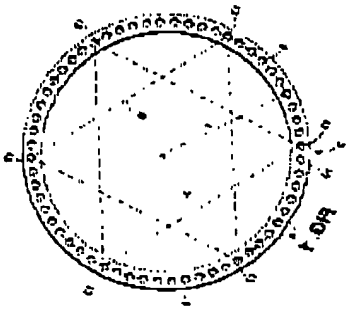


FIG. 4

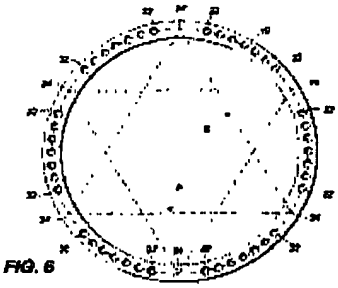


FIG. 6

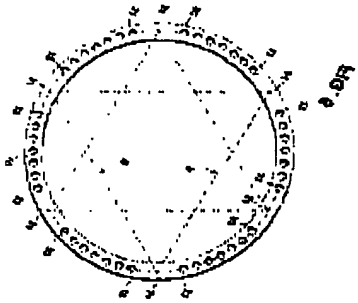


FIG. 8

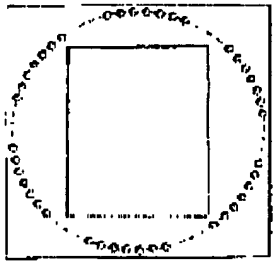


FIG. 9

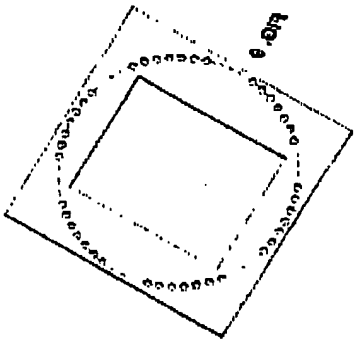


FIG. 9

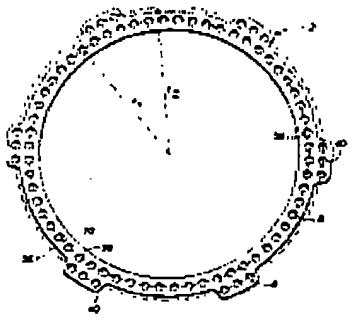


FIG. 10

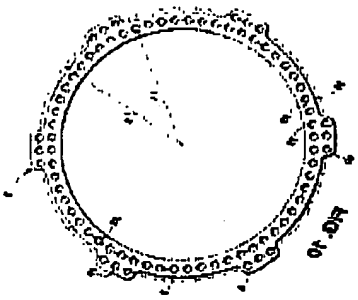


FIG. 10

Pending claims 36 and 45 also clarify this spacing and symmetry concept and should be considered allowable for the above reasons.

III. Claim amendment - the '095 patent spherical cavities 79 and spaced apertures 75 are not multi-functional

Without acquiescing to the correctness of the Examiner's rejections but in the interest of advancing the prosecution of this case, Applicants have clarified that the claimed attachment structures are multi-functional. One of the benefits of the claimed system is that it is modular and can be modified during the surgical procedure. In other words, if a surgeon needs to flip or rotate a plate, s/he may do so, without worrying about attachment structure placement because the structures are systematically positioned, according to the claimed equation, to allow such changes without ruining the symmetry. A strut may be moved to be cooperate with a different attachment structure and an accessory may be replaced where the strut was. This adaptability but systematic attachment structure placement is an advantage over the Taylor '095 patent, which has differently sized apertures that are intended to receive different structures.

CONCLUSION

For at least the above reasons, Applicants respectfully request allowance of claims 1-14 and 36-48 and issuance of a patent containing these claims in due course. If there remain any additional issues to be addressed, the Examiner is urged to contact the undersigned attorney at 404.815.6147.

Respectfully submitted,

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